In the Claims

Please replace the Claims with the following clean version of the entire set of pending Claims, in accordance with 37 C.F.R. §1.121(c)(1)(i). Cancel all previous versions of any pending Claim.

A marked up version showing amendments to any Claims being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 C.F.R. §1.121(c)(1)(ii). Any Claim not accompanied by a marked up version has not been changed relative to the immediate prior version, except that marked up versions are not being supplied for any added Claim or canceled Claim.

Cancel Claims 1-20 without prejudice.

21. DRAM circuitry comprising:

an array of word lines forming gates of field effect transistors and an array of bit lines, individual field effect transistors comprising a pair of source/drain regions; and

a plurality of memory cell storage capacitors associated with the field effect transistors, individual storage capacitors comprising a first capacitor electrode in electrical connection with one of a pair of source/drain regions of one of the field effect transistors and a second capacitor electrode, a capacitor dielectric region received intermediate the first and second capacitor electrodes, the region comprising aluminum nitride, the other of the pair of source/drain regions of the one field effect transistor being in electrical connection with one of the bit lines.

22. The circuitry of Claim 21 wherein the region contacts each of the first and second capacitor electrodes and consists essentially of aluminum nitride.

23. The circuitry of Claim 21 wherein the region contacts each of the first and second capacitor electrodes and consists essentially of aluminum nitride and native oxide formed on at least one of the first and second capacitor electrodes.

24. The circuitry of Claim 21 wherein the region contacts each of the first and second capacitor electrodes and has a thickness less than or equal to 60 Angstroms.

25. The circuitry of Claim 21 wherein the region contacts each of the first and second capacitor electrodes and has a thickness less than or equal to 50 Angstroms.

26. The circuitry of Claim 21 wherein the region contacts each of the first and second capacitor electrodes, consists essentially of aluminum nitride, and has a thickness less than or equal to 60 Angstroms.

27. The circuitry of Claim 21 wherein the region contacts each of the first and second capacitor electrodes, consists essentially of aluminum nitride and native oxide formed on at least one of the first and second capacitor electrodes, and has a thickness less than or equal to 60 Angstroms.

29. A method of forming a field emission device comprising:

forming an electron emission substrate comprising emitters;

providing the emission substrate within a chemical vapor deposition reactor;

feeding ammonia and at least one compound of the formula R_3Al, where "R" is an alkyl group or a mixture of alkyl groups, to the reactor while the electron emission substrate is at a temperature of about 500°C or less and at a reactor pressure from about 100 mTorr to about 725 Torr effective to deposit a layer comprising aluminum nitride over at least a portion of the emitters; and

after the deposit, joining the electron emission substrate with an electron collector substrate.

30. The method of Claim 29 wherein the electron collector substrate comprises a face plate comprising phosphor, and comprising forming the device to comprise a field emission display.

31. The method of Claim 29 wherein the electron emission substrate comprises a conductive extraction grid formed outwardly of and spaced from the emitters, the deposit occurring after formation of the extraction grid.

32. The method of Claim 29 wherein the electron emission substrate comprises a conductive extraction grid formed outwardly of and spaced from the emitters, the deposit occurring after formation of the extraction grid and also occurring on the extraction grid.

33. The method of Claim 29 wherein the compound comprises triethylaluminum.

34. The method of Claim 29 wherein the compound comprises trimethylaluminum.

35. The method of Claim 29 wherein the compound comprises at least two different alkyl groups.

36. The method of Claim 29 wherein the compound comprises at least one methyl group and at least one ethyl group.

37. The method of Claim 29 wherein electron emission substrate temperature is greater than or equal to about 250°C during the feeding.

38. The method of Claim 29 wherein electron emission substrate temperature is from about 380°C to about 420°C during the feeding.

39. The method of Claim 29 wherein electron emission substrate temperature and reactor pressure are maintained substantially constant during the feeding and deposit.

40. The method of Claim 29 wherein the aluminum nitride is substantially amorphous.

41. The method of Claim 29 wherein the reactor is void of plasma during the depositing.

42. A field emission device comprising:

an electron emitter substrate comprising emitters having at least a partial covering comprising aluminum nitride; and

an electrode collector substrate spaced from the electron emitter substrate.

43. The field emission device of Claim 42 wherein the electron collector substrate comprises a face plate comprising phosphor, and the field emission device comprises a field emission display.

44. The field emission device of Claim 42 wherein the electron emission substrate comprises a conductive extraction grid formed outwardly of and spaced from the emitters, the covering being received over the extraction grid.

45. The field emission device of Claim 42 wherein the electron emission substrate comprises a conductive extraction grid formed outwardly of and spaced from the emitters, aluminum nitride of the covering being in contact with the extraction grid.

46. The field emission device of Claim 42 wherein the emitter covering consists essentially of aluminum nitride.

47. The field emission device of Claim 42 wherein the emitter covering is void of oxide.

48. The field emission device of Claim 42 wherein the aluminum nitride is substantially amorphous.

49. The field emission device of Claim 42 wherein the covering comprises a thickness less than or equal to about 150 Angstroms.

50. The field emission device of Claim 42 wherein the covering comprises a thickness greater than or equal to about 50 Angstroms.

51. A field emission device comprising:

an electron emitter substrate comprising emitters having at least a partial covering comprising an electrically insulative material other than an oxide of silicon; and

an electrode collector substrate spaced from the electron emitter substrate.

52. The field emission device of Claim 51 wherein the electron collector substrate comprises a face plate comprising phosphor, and the field emission device comprises a field emission display.

53. The field emission device of Claim 51 wherein the electron emission substrate comprises a conductive extraction grid formed outwardly of and spaced from the emitters, the covering being received over the extraction grid.

54. The field emission device of Claim 51 wherein the electron emission substrate comprises a conductive extraction grid formed outwardly of and spaced from the emitters, aluminum nitride of the covering being in contact with the extraction grid.

55. The field emission device of Claim 51 wherein the covering comprises a thickness less than or equal to about 150 Angstroms.

56. The field emission device of Claim 51 wherein the covering comprises a thickness greater than or equal to about 50 Angstroms.

Add new Claims 57-63 as follows:

--57. (New) A method of forming a field emission device comprising:

forming an electron emission substrate comprising emitters;

providing the emission substrate within a chemical vapor deposition reactor;

heating the emission substrate within the deposition reactor to a temperature from about 250°C to about 420°C;

reducing a pressure within the deposition chamber, the reduced pressure from about 10 mTorr to about 725 Torr; and

feeding ammonia and at least one compound of the formula R_3Al, where "R" is an alkyl group or a mixture of alkyl groups, to the heated, reduced pressure deposition reactor, the ammonia, the at least one compound of the formula R_3Al, the temperature and the reduced pressure effective to form the layer comprising amorphous aluminum nitride over the emission substrate.

58. (New) The method of Claim 57 wherein substrate temperature and deposition reactor pressure are maintained substantially constant during the feeding and the forming.

59. (New) The method of Claim 57 wherein the deposition reactor is void of plasma during the depositing.

60. (New) The method of Claim 57 wherein the compound comprises triethylaluminum or trimethylaluminum.

61. (New) The method of Claim 57 wherein the compound comprises at least two different alkyl groups.

62. (New) The method of Claim 57 wherein the compound comprises at least one methyl group and at least one ethyl group.

63. (New) The method of Claim 57 wherein the reduced pressure is from between about 10 Torr to about 100 Torr.--